

WA 6906
4.14.93
6b



April 14, 1993

Service Request No.: K931725

Bryant Adams
Pacific Wood Treating Corporation
111 West Division Street
Ridgefield, WA 98642

Re: **RBT - PWT Project**

Dear Bryant:

Enclosed are the results of the samples submitted to our laboratory on March 26, 1993. For your reference, these analyses have been assigned our service request number K931725.

All analyses were performed consistent with our laboratory's quality assurance program. All results are intended to be considered in their entirety, and Columbia Analytical Services, Inc. (CAS) is not responsible for use of less than the complete report. Results apply only to the samples analyzed.

Please call if you have any questions.

Respectfully submitted,

Columbia Analytical Services, Inc.

A handwritten signature in black ink, appearing to read 'Janice M. Sedlak', is written over a circular stamp or seal.

Janice M. Sedlak
Project Chemist

JMS/jed

Page 1 of 14



COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: Pacific Wood Treating Corporation
Project: RBT - PWT
Sample Matrix: Water

Date Received: 03/26/93
Work Order No.: K931725

Inorganic Parameters
mg/L (ppm)

Sample Name:
Lab Code:

B5N
K1725-1

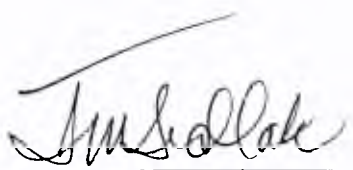
B4SW
K1725-2

U9WW
K1725-3

Analyte	EPA Method	MRL			
Chloride	300.0	0.2	0.7	10	4.8
Phenolics, Total	420.1	0.01	ND	ND	ND
Sulfate	300.0	0.2	1.6	1.7	4.6
Total Organic Carbon (TOC)	415.1	0.5	2.8	2.3	2.5

MRL Method Reporting Limit
ND None Detected at or above the method reporting limit

Approved by



Date

4/14/93

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COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: Pacific Wood Treating Corporation
Project: RBT - PWT
Sample Matrix: Water

Date Received: 03/26/93
Work Order No.: K931725

Inorganic Parameters
mg/L (ppm)

Sample Name:
Lab Code:

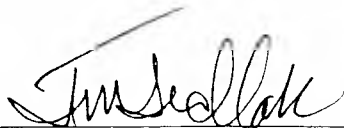
T8C
K1725-4

Method Blank
K1725-MB

Analyte	EPA Method	MRL		
Chloride	300.0	0.2	2.8	ND
Phenolics, Total	420.1	0.01	ND	ND
Sulfate	300.0	0.2	5.0	ND
Total Organic Carbon (TOC)	415.1	0.5	1.9	ND

MRL Method Reporting Limit
ND None Detected at or above the method reporting limit

Approved by



Date

4/14/93

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COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: Pacific Wood Treating Corporation
Project: RBT - PWT
Sample Matrix: Water

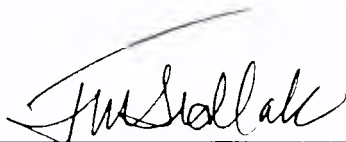
Date Received: 03/26/93
Date Analyzed: 04/07/93
Work Order No.: K931725

Total Organic Halides (TOX)
EPA Method 9020
 $\mu\text{g/L}$ (ppb)

Sample Name	Lab Code	MRL	Result
B5N	K1725-1	10	282
B4SW	K1725-2	10	ND
U9WW	K1725-3	10	ND
T8C	K1725-4	10	ND
Method Blank	K1725-MB	10	ND

MRL Method Reporting Limit
ND None Detected at or above the method reporting limit

Approved by



Date

4/14/93

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COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: Pacific Wood Treating Corp.
Project: RBT - PWT
Matrix: Water

Date Received: 3/26/93
Work Order No.: K931725

Total Metals
µg/L (ppb)

Sample Name:	B5N	B4SW	U9WW
Lab Code:	K172501	K172502	K172503

Analyte	EPA Method	MRL			
Arsenic	7060	3	ND	ND	ND

MRL Method Reporting Limit.
ND None Detected at or above the method reporting limit.

MET.GW(1,2,3)03-13-92

Approved: Jm Sallak

Date: 4/14/93 Page No.: 000005

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: Pacific Wood Treating Corp.
Project: RBT - PWT
Matrix: Water

Work Order No.: K931725

Total Metals
µg/L (ppb)

Sample Name: Method Blank
Lab Code: K1725MB

Analyte	EPA Method	MRL	
Arsenic	7060	3	ND

MRL

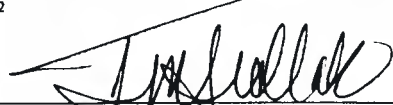
Method Reporting Limit.

ND

None Detected at or above the method reporting limit.

MET.GW(1,2,3)03-13-92

Approved: _____



Date: 4/14/93

Page No.:

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COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: Pacific Wood Treating Corp.
Project: RBT - PWT
Matrix: Water

Date Received: 3/26/93
Work Order No.: K931725

Dissolved Metals
 $\mu\text{g/L}$ (ppb)

Sample Name:	B5N	B4SW	U9WW
Lab Code:	K172501	K172502	K172503

Analyte	EPA Method	MRL			
Arsenic	7060	3	-	-	-
Chromium	6010	1	4	1	ND
Copper	6010	2	6	4	3
Iron	6010	4	3680	1090	460
Manganese	6010	1	105	14	219
Sodium	6010	20	3100	14700	7060

MRL Method Reporting Limit.
 ND None Detected at or above the method reporting limit.

MET.GW(1,2,3)/03-13-92

Approved: 

Date:  Page No.:

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COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: Pacific Wood Treating Corp.
Project: RBT - PWT
Matrix: Water

Date Received: 3/26/93
Work Order No.: K931725

Dissolved Metals
µg/L (ppb)

Sample Name: T8C Method Blank
Lab Code: K172504 K1725MB

Analyte	EPA Method	MRL		
Arsenic	7060	3	ND	ND
Chromium	6010	1	ND	ND
Copper	6010	2	2	ND
Iron	6010	4	668	ND
Manganese	6010	1	416	ND
Sodium	6010	20	6060	ND

MRL Method Reporting Limit.
ND None Detected at or above the method reporting limit.

MET.GW(1,2,3)03-13-92

Approved: 

Date: 4/14/93

Page No.:

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COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: Pacific Wood Treating Corporation
Project: RBT - PWT
Sample Matrix: Water

Date Received: 03/26/93
Date Extracted: 03/31/93
Date Analyzed: 04/05/93
Work Order No.: K931725

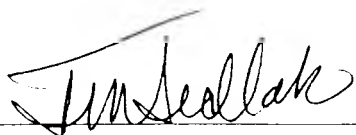
Chlorinated Phenols
EPA Methods 3510/Modified 8150
 $\mu\text{g/L}$ (ppb)

Sample Name	Lab Code	MRL	Pentachloro-phenol
B5N	K1725-1	1	ND
B4SW	K1725-2	1	ND
U9WW	K1725-3	1	ND
T8C	K1725-4	1	ND
Method Blank	K1725-MB	1	ND

MRL Method Reporting Limit

ND None Detected at or above the method reporting limit

Approved by



Date

4/14/93

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COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: Pacific Wood Treating Corporation
Project: RBT - PWT
Sample Matrix: Water

Date Received: 03/26/93
Date Extracted: 03/29/93
Work Order No.: K931725

Polynuclear Aromatic Hydrocarbons
EPA Methods 3520/8310
 $\mu\text{g/L}$ (ppb)

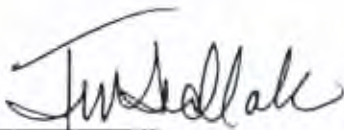
Sample Name:	B5N	B4SW	U9WW
Lab Code:	K1725-1	K1725-2	K1725-3
Date Analyzed:	03/31/93	03/31/93	03/31/93

Analyte	MRL			
Naphthalene	1	ND	ND	ND
Acenaphthene	1	ND	ND	ND
Acenaphthylene	1	ND	ND	ND
Fluorene	0.2	ND	ND	0.4
Phenanthrene	0.1	ND	ND	0.4
Anthracene	0.1	ND	ND	ND
Fluoranthene	0.2	ND	ND	ND
Pyrene	0.2	ND	ND	ND
Benz(a)anthracene	0.1	ND	ND	ND
Chrysene	0.1	ND	ND	ND
Benzo(b)fluoranthene	0.2	ND	ND	ND
Benzo(k)fluoranthene	0.1	ND	ND	ND
Benzo(a)pyrene	0.1	ND	ND	ND
Dibenz(a,h)anthracene	0.1	ND	ND	ND
Benzo(g,h,i)perylene	0.2	ND	ND	ND
Indeno(1,2,3-cd)pyrene	0.1	ND	ND	ND

MRL Method Reporting Limit

ND None Detected at or above the method reporting limit

Approved by



Date

4/14/93

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COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: Pacific Wood Treating Corporation
Project: RBT - PWT
Sample Matrix: Water

Date Received: 03/26/93
Date Extracted: 03/29/93
Work Order No.: K931725

Polynuclear Aromatic Hydrocarbons
 EPA Methods 3520/8310
 µg/L (ppb)

Sample Name:
Lab Code:
Date Analyzed:

T8C
K1725-4
03/31/93

Method Blank
K1725-MB
03/31/93

Analyte	MRL		
Naphthalene	1	ND	ND
Acenaphthene	1	ND	ND
Acenaphthylene	1	ND	ND
Fluorene	0.2	ND	ND
Phenanthrene	0.1	ND	ND
Anthracene	0.1	ND	ND
Fluoranthene	0.2	ND	ND
Pyrene	0.2	ND	ND
Benz(a)anthracene	0.1	ND	ND
Chrysene	0.1	ND	ND
Benzo(b)fluoranthene	0.2	ND	ND
Benzo(k)fluoranthene	0.1	ND	ND
Benzo(a)pyrene	0.1	ND	ND
Dibenz(a,h)anthracene	0.1	ND	ND
Benzo(g,h,i)perylene	0.2	ND	ND
Indeno(1,2,3-cd)pyrene	0.1	ND	ND

MRL Method Reporting Limit
ND None Detected at or above the method reporting limit

Approved by _____

Date _____

00001

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: Pacific Wood Treating Corporation
Project: RBT - PWT
Sample Matrix: Water

Date Received: 03/26/93
Date Extracted: 03/31/93
Date Analyzed: 04/15/93
Work Order No.: K931725

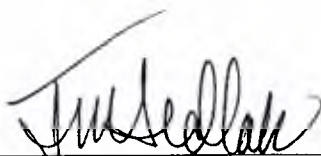
Surrogate Recovery Summary
Chlorinated Phenols
EPA Methods 3510/Modified 8150

Sample Name	Lab Code	Percent Recovery 4-Bromo-2,6-dichlorophenol
B5N	K1725-1	82
B4SW	K1725-2	87
U9WW	K1725-3	90
T8C	K1725-4	93
T8C	K1725-4MS	96
T8C	K1725-4DMS	80
Laboratory Control Sample	K1725-LCS	88
Method Blank	K1725-MB	86

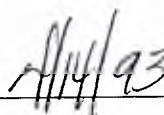
CAS Acceptance Criteria

56-116

Approved by



Date



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COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: Pacific Wood Treating Corporation
Project: RBT - PWT
Sample Matrix: Water

Date Received: 03/26/93
Date Extracted: 03/29/93
Date Analyzed: 03/31/93
Work Order No.: K931725

Surrogate Recovery Summary
Polynuclear Aromatic Hydrocarbons
EPA Methods 3520/8310

Sample Name	Lab Code	Percent Recovery <i>p</i> -Terphenyl
B5N	K1725-1	86
B4SW	K1725-2	92
U9WW	K1725-3	97
T8C	K1725-4	88
Laboratory Control Sample	K1725-LCS	96
Method Blank	K1725-MB	90

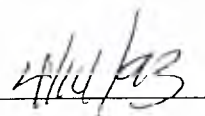
CAS Acceptance Criteria

35-132

Approved by



Date



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DATE PAGE OF

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